EXHIBIT J

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF VIRGINIA
Norfolk Division

DOUGLAS I. HORNSBY, Administrator of the Estate of CYNTHIA GARY,

Plaintiff,

v. **Case No. 2:22-cv-427**

UNITED STATES of AMERICA, et al.,

Defendant and Third-Party Plaintiff,

v.

METRO MACHINE CORP., d/b/a GENERAL DYNAMICS NASSCO – Norfolk

and

ADVANCED INTEGRATED TECHNOLOGIES, LLC,

Third Party Defendants.

DEFENDANT AND THIRD-PARTY PLAINTIFF UNITED STATES' RULE 26(a)(2)(B) DISCLOSURE OF EXPERT TESTIMONY

Pursuant to Fed. R. Civ. P. 26(a)(2)(B) and the Rule 16(b) Scheduling Order, Defendant, the United States of America, submits the following disclosure of retained expert testimony:

1. Dr. James Koch
Board of Visitors Professor of Economics Emeritus and President Emeritus
Old Dominion University
305 Brook Avenue, #308
Norfolk, VA 23510
(757) 623-2923
jkoch@odu.edu

Dr. Koch is offered as a Rule 26(a)(2)(B) expert.

Dr. Koch's qualifications and compensation are set forth in his expert report and exhibits thereto.

2. **Gregory J. Paulsen, P.E.**
Senior Mechanical Engineer
CED Technologies, Inc.
1315 West College Avenue, Suite 203
State College, PA 16801
(814) 404-4463

Mr. Paulsen is offered as a Rule 26(a)(2)(B) expert.

Mr. Paulsen's qualifications and compensation are set forth in his expert report and exhibits thereto.

Dated: January 6, 2025

Respectfully submitted,

UNITED STATES OF AMERICA

JESSICA D. ABER
United States Attorney

By: /s/ *Garry D. Hartlieb*
Garry D. Hartlieb, IL Bar No. 6322571
Assistant U.S. Attorney
Office of the United States Attorney
101 West Main Street, Suite 8000
Norfolk, Virginia 23510-1671
Tel: (757) 441-3173
Fax: (757) 441-6689
E-mail: garry.hartlieb@usdoj.gov

BRIAN M. BOYNTON
Principal Deputy Assistant Attorney General

By: /s/ *Malinda R. Lawrence*
Malinda R. Lawrence, ME Bar No. 004351
James Whitman, DC Bar No. 987694
Shaun Pehl, WA Bar No. 45534
Trial Attorneys
United States Department of Justice

Civil Division, Torts Branch
Aviation, Space & Admiralty Litigation
175 N Street, NE, 11th Floor
Washington, DC 20002
Tel: (202) 307-0033/(202) 616-4169
Fax: (202) 616-4002
E-mail: Malinda.R.Lawrence@usdoj.gov
E-mail: James.Whitman@usdoj.gov

Attorneys for the United States

CERTIFICATE OF SERVICE

I hereby certify that on January 6, 2025, a copy of the foregoing was served via electronic mail to the following counsel of record:

Robert J. Haddad, Esquire
Virginia State Bar No. 22298
Andrew M. Hendrick, Esquire
Virginia State Bar No. 42852
RULOFF, SWAIN, HADDAD, MORECOCK, TALBERT & WOODWARD, P.C.
317 30th Street
Virginia Beach, Virginia 23452
757-671-6036 Telephone
757-671-6004 Facsimile
rhaddad@srgslaw.com
ahendrick@srgslaw.com
Counsel for Douglas I. Hornsby, Administrator of the Estate of Cynthia Gary

METRO MACHINE CORP.
Third-Party Defendant

By: */s/ Lynn K. Brugh, IV*
Lynn K. Brugh, IV, Esq.
Jack A. Irvin, Esq.
WILLIAMS MULLEN
200 South 10th Street, Suite 1600
Richmond, VA 23219
Telephone: (804) 420-6461
Facsimile: (804) 420-6507
Email: lbrugh@williamsmullen.com
Email: jirvin@williamsmullen.com

Attorneys for Defendant Metro Machine Corp. d/b/a General Dynamics NASSCO-Norfolk

ADVANCED INTEGRATED TECHNOLOGIES, LLC
Third-Party Defendant

By: */s/ Jennifer L. Eaton*
Jennifer L. Eaton, Esq.
Katherine Lennon, Esq.
WOODS ROGERS VANDEVENTER BLACK PLC
101 West Main St., Suite 500
Norfolk, Virginia, 23510
Telephone: 757-446-8600
Fax: 757-446-8670
Email: Jennifer.Eaton@wrvblaw.com
Email: Kate.Lennon@wrvblaw.com

Attorneys for Defendant, Advanced Integrated Technologies, LLC

By: /s/ *Malinda R. Lawrence*
Malinda R. Lawrence
Counsel for the United States

Douglas Hornsby
v.
United States of America, et al. Investigation

Gregory Paulsen
Mechanical Engineer

January 3, 2025
CED Case No. 15954.1

CED
TECHNOLOGIES INC
SCIENCE EXPLAINED

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Introduction

CED Technologies, Inc. [CED] was asked to perform an investigation and review of contractor conduct regarding a fatality aboard a United States Naval Vessel undergoing a shipyard selected restricted availability period. It was reported that a subcontractor performing fire watch duties was caught in the path of an engineering propulsion intake door.

CED's investigation is ongoing; therefore, the opinions and conclusions presented in this report are only current as of the date of issuance. CED reserves the right to modify, add, or delete conclusions should new information become available. Exhibit A attached to this report contains the curriculum vitae of this engineer's education, experience, qualifications, and publications.

Background

On the morning of March 15, 2021, the guided missile destroyer USS McFaul [DDG 74] was docked undergoing a shipyard selected restricted availability [SRA] at the General Dynamics-National Steel and Shipbuilding Company [NASSCO] facility in Norfolk, Virginia. DDG 74 was in a shutdown condition and was manned by ship's force and NASSCO/Repair Activity personnel.

It was reported that Ms. Cynthia Gary was performing her assigned duties as a fire watch for hot work being performed by Coastal Mechanical Systems. The hot work was being performed on the clean side [interior] of the #2 Ship's Service Generator – Turbine Generator [#2 SSGTG] intake stack. Ms. Gary was assigned to the dirty side [exterior] of the #2 SSGTG intake stack one deck below the hot work being performed. Ms. Gary positioned herself in the opening for the stack's blow in door [BID] to observe the areas below the hot work. While in this position, the BID shut, fatally trapping Ms. Gary.

Investigation

CED's investigation included a review of the following written materials:

1. Complaint
2. Expert Reports:
    a. Chester D. Rudolf III, PE, submitted November 28, 2024.
3. Depositions:
    a. LCDR Aaron Getty, taken July 22, 2024.
    b. GSMCS Robbie Goff, taken August 30, 2024.
    c. GSMC Anita Roberts, taken September 25, 2024.
    d. GSM1 Austin Roberts, taken September 25, 2024.
    e. Douglas Helms, taken December 10, 2024.
4. Discovery:
5. NAVSEA Tag-out Users Manual – NAVSEA 0400-AD-URM-010, Revision 8.
6. United State of America / General Dynamics NASSCO Norfolk Contract N00024-16-D-4408.
7. S9234-GB-MMA-010 – Technical Manual for Moisture Separator/Blow-In Panel Set. November 1993.
8. S9234-GB-MMA-010 – Technical Manual for Moisture Separator/Blow-In Panel Set. June 2018.
9. OSHA 1915.504 – Fire Watches.
10. DDG 74 Maintenance Requirement Cards:
    a. S-1 Inspect Moisture Separator, Inspect and Lubricate Blow-in Panels, Test Heat Trace, and Test Blow-in Panel Automatic Operation.
    b. S-5 Test Blow-in Doors Automatic Operation, Inspect and Lubricate Moisture Separator/Blow-In Panels and Test Heat Trace.
    c. U-3 Replace Blow-In Door Gasket.

11. General Gas Turbine Bulletin (GGTB) NR. 28 Revision 2 – April 30, 2018.
12. General Gas Turbine Bulletin (GGTB) NR. 28 – April 1, 2016.
13. General Gas Turbine Bulletin (GGTB) NR. 28 Revision 3 – August 24, 2021.
14. Hot Work Permit, dated March 16, 2021/0600.
15. Contractor Work Authorization Forms [WAF]:
    a. WAF No. 0271
    b. WAF No. 0201
16. OSHA Citations:
    a. Coastal Mechanical, issued August 31, 2021.
    b. Harbor Industrial Services, issued August 31, 2021.
17. Department of the Navy Notice of Claim – from Douglas Hornsby, dated December 10, 2021.

Expert Report by Chester Rudolf, PE: This report reached the following conclusions and opinions:

- Concluded (among other conclusions):
    - Failure of the RA to follow the NavSea Tag-out Manual to properly review the tag-out procedure with the Authorizing Officer before posting of the tags associated with the BID's. The WAF' s submitted should also have been more specific in the proposal for tag out. System schematics should have also been reviewed with the Ship's Force Authorizing Officer prior to tagging.
    - There is no evidence of the RA properly warning the fire watch of the pinch hazards associated with open BID's.

USA/NASSCO Contract: This contract revealed the following information:

- Option until funding until per FAR 52.232-18 – Availability of Funds as FAR 52.232-19 Availability of Funds for the Next Fiscal Year. The Contractor shall provide all labor, materials, facilities, supervision and equipment to meet the requirements outline in Section C. All work shall be completed in accordance with all applicable local, State,

Federal and Navy rules and regulations whether they are explicitly written/referenced in the DD 1155 or not.

OSHA 1915.504 : This directive revealed the following information:

- 1915.504(a) ***Written fire watch policy***. The employer must create and keep current a written policy that specifies the following requirements for employees performing fire watch in the workplace:
  - 1915.504(a)(1) The training employees must be given (§ 1915.508(c) contains detailed fire watch training requirements);
  - 1915.504(a)(2) The duties employees are to perform;
  - 1915.504(a)(3) The equipment employees must be given; and
  - 1915.504(a)(4) The personal protective equipment (PPE) that must be made available and worn as required by 29 CFR Part 1915, Subpart I.
- 1915.504(b) ***Posting fire watches***. The employer must post a fire watch if during hot work any of the following conditions are present:
  - 1915.504(b)(1) Slag, weld splatter, or sparks might pass through an opening and cause a fire;
  - 1915.504(b)(2) Fire-resistant guards or curtains are not used to prevent ignition of combustible materials on or near decks, bulkheads, partitions, or overheads;
  - 1915.504(b)(3) Combustible material closer than 35 ft. (10.7m) to the hot work in either the horizontal or vertical direction cannot be removed, protected with flame-proof covers, or otherwise shielded with metal or fire-resistant guards or curtains;
  - 1915.504(b)(4) The hot work is carried out on or near insulation, combustible coatings, or sandwich-type construction that cannot be shielded, cut back, or removed, or in a space within a sandwich type construction that cannot be inerted;
  - 1915.504(b)(5) Combustible materials adjacent to the opposite sides of bulkheads, decks, overheads, metal partitions, or sandwich-type construction may be ignited by conduction or radiation;

- 1915.504(b)(6) The hot work is close enough to cause ignition through heat radiation or conduction on the following:
  - 1915.504(b)(6)(i) Insulated pipes, bulkheads, decks, partitions, or overheads; or
  - 1915.504(b)(6)(ii) Combustible materials and/or coatings;
- 1915.504(b)(7) The work is close enough to unprotected combustible pipe or cable runs to cause ignition; or
- 1915.504(b)(8) A Marine Chemist, a Coast Guard-authorized person, or a shipyard Competent Person, as defined in 29 CFR Part 1915, Subpart B, requires that a fire watch be posted.

- 1915.504(c) ***Assigning employees to fire watch duty***.
  - 1915.504(c)(1) The employer must not assign other duties to a fire watch while the hot work is in progress.
  - 1915.504(c)(2) Employers must ensure that employees assigned to fire watch duty:
    - 1915.504(c)(2)(i) Have a clear view of and immediate access to all areas included in the fire watch;
    - 1915.504(c)(2)(ii) Are able to communicate with workers exposed to hot work;
    - 1915.504(c)(2)(iii) Are authorized to stop work if necessary and restore safe conditions within the hot work area;
    - 1915.504(c)(2)(iv) Remain in the hot work area for at least 30 minutes after completion of the hot work, unless the employer or its representative surveys the exposed area and makes a determination that there is no further fire hazard;
    - 1915.504(c)(2)(v) Are trained to detect fires that occur in areas exposed to the hot work;

- 1915.504(c)(2)(vi) Attempt to extinguish any incipient stage fires in the hot work area that are within the capability of available equipment and within the fire watch's training qualifications, as defined in § 1915.508;
- 1915.504(c)(2)(vii) Alert employees of any fire beyond the incipient stage; and
- 1915.504(c)(2)(viii) If unable to extinguish fire in the areas exposed to the hot work, activate the alarm.

- 1915.504(c)(3) The employer must ensure that employees assigned to fire watch are physically capable of performing these duties.

Hot Work Permit: This permit revealed the following information:

- Located at 02-242-0-Q.
- Grinding, Welding and Plasma Cutting.
- Scope of Work – Remove and Install deck and inserts.
- Hot Work Operator [HWO] and Fire Watch [FW] to Validate and PAI/HWS to verify conditions:
  - Qualified FW assigned (must have proof of qualification and be identified as FW)
  - HWO has ensured FW has immediate access, and established communications.

NAVSEA Tag-out Users Manual: This manual revealed the following information:

- 1.3.1.d Ship's Force is responsible for ensuring the adequacy and accuracy of all tag-outs, including those proposed by the RA. They shall also verify that tags, which are no longer needed, are removed as soon as possible after the operation/work line item(s) has been cleared. Ship's Force is responsible for system restoration (e.g., valve/switch lineups) after tags are cleared.
- 1.3.3. Repair Activity

  a. The RA is responsible for:

  (1) Ensuring personnel understand and comply with this manual including their sub-contractors.

(2) Reviewing tag-outs associated with RA work.

(3) Ensuring the accuracy and adequacy of tag-outs before signing the **Repair** Activity Rep block of the line item. This review shall ensure that enough tags are used to completely isolate the system, piping, or circuit being worked on or to prevent operation of a system or component from all stations that could exercise control. Approved system diagrams or circuit schematics shall be used to determine the adequacy of all tag-out actions. When local instructions allow, the documented verification signature made by a qualified repair activity individual proposing the tag-out may be used as the repair activity's validation of the adequacy and accuracy of a tag-out. This allowance only applies when the proposed tag-out and the authorized tag-out are identical. The RA Representative authorizing the line item remains responsible for ensuring the tag-out is compatible with system status and ship/plant conditions.

(4) Ensuring tags that are no longer needed, are authorized for removal as soon as possible after the operation/work line item has been signed as completed.

(5) Ensuring qualified personnel act as the RA Representative for tag-out procedures.

- 1.4 TRAINING AND QUALIFICATIONS.

1.4.1 All individuals who perform work aboard Naval Vessels shall be indoctrinated in basic purpose, use and restrictions associated with this manual. Additionally, personnel indoctrination and training shall include that the RA employee will be provided the opportunity to review isolations and system conditions established for their work.

1.4.2 Personnel assigned to prepare tag-outs, review tag-outs, position equipment, post (attach) tags, check posted tags, clear (remove) tags, or perform tag audits, shall be qualified on this tag-out manual. Formal notices which list qualified personnel by name are not required by this manual. The Authorizing Officer is responsible for ensuring that Ship's Force personnel assigned to make a tag-out are qualified to perform the duties under this manual.

a. Tag-out User's Manual training topics shall be included in the Ship's, and RA, continuing training program.
b. The term qualified *as* used in this Tag-out User's Manual means that the person assigned to perform a tag-out function is knowledgeable about the requirements of this manual and is knowledgeable about the involved system/equipment.
c. Ship's Force qualification in this Tag-out User's Manual should be done by the completion of 3M 301 Personnel Qualification Standard, and if required, completion of departmental qualifications.
d. RA personnel are qualified in this Tag-out User's Manual by successful completion of the activity's training program. A formal system should be in place at the RA for performing and tracking qualifications of personnel on this manual.

OSHA Citations These citations revealed the following information:

- Coastal Mechanical Systems, LLC:
  - Citation 1 Item 1 Type of Violation: **Serious**

    29 CFR 1915.89(c)(1):The employer did not ensure that, before any authorized employee performed servicing when energization or startup, or the release of hazardous energy, may occur, all energy sources were identified and isolated, and the machinery, equipment, or system were rendered inoperative.

    On or about 03-15-2021 and times prior thereto, onboard the USS McFaul, DDG-74 located at General Dynamics - NASSCO Norfolk 200 Ligon Street. Norfolk, VA 23523: Employee(s) were exposed to pinch point and crushing hazards from a gas turbine engine blow-in door that was tagged out in the open position and not depressurized, de-energized, restrained, or isolated from all energy sources of power. No other verification of additional safety measures necessa1y to provide the equivalent safety available from the use of a lock were implemented.
- Harbor Industrial Services, LLC:

- Citation 1 Item Type of Violation: **Serious**

  29 CFR l915.89(c)(l):The employer did not ensure that, before any authorized employee performed servicing when energization or startup, or the release of hazardous energy, may occur, all energy sources were identified and isolated, and the machinery, equipment, or system were rendered inoperative.

  On or about 03-15-2021, and times prior thereto, onboard the USS Mcfaul, DDG-74 located at General Dynamics - NASSCO Norfolk 200 Ligon Street. Norfolk, VA 23523: Employee(s) were exposed to pinch point and crushing hazards from a gas turbine engine blow-in door that was tagged out in the open position and not de- pressurized, de-energized, restrained, or isolated from all energy sources of power. No other verification of additional safety measures necessary to provide the equivalent safety available from the use of a lock were implemented.

Deposition of Douglas Helms: This deposition revealed the following information:

- WAF coordinator at NASSCO.
- Answered to NASSCO : “In the trailer I have the overall project manager for NASSCO for the McFaul availability.” [36]
- Regarding how he and NASSCO coordinated work during the SRA: [37]

  Q: So the overall project manager for NASSCO was, typically, in that trailer?

  A: He sat at one end of the trailer, he had his office down there. Yeah. I could talk to him about, you know, upcoming evolutions, you know, and everybody else had work items, they covered work items, all the other managers in there, and they would say, "Okay, yeah, this work item is coming up", and I'd say, "Well, I haven't even got a WAF yet for it. Do you want to call that company or whoever's doing the work to let them know to get their WAF in?" So it's a coordination thing. I would see

them every morning, I would come down at lunch and be there, and then in the afternoon maybe some were there, maybe not, but that's--

Q: Okay.

A: But I would let them know, "Okay. I've got this many. This is how many WAF'S we have. This is how many we have authorized". Authorized is they can go to work, you know, go to work on those items.

- Both he and the repair activities had access to ESOMs.

Discussion

The USS McFaul [DDG 74] was engaged in an SRA at the General Dynamics – NASSCO shipyard facility. The record shows that NASSCO, through project management and work authorization facilitation called out in their contract with the United States, controlled work scheduling of contractors hired by NASSCO. Administrative practices, as contractually called out, controlled what work was performed at what time, with what materials, and supplied a method through the use of Work Authorization Forms [WAFs] to ensure proper job completion and safety for the workers involved.

DDG 74 was shut down for the SRA period. While the ship was Personnel on DDG 74, referred to in the contract as Ship's Force, not formally turned over to NASSCO for the SRA, all ship repair operations were turned over to NASSCO with the Ship's Force keeping control and custody of DDG 74. Ship's force were on hand in the ship yard to render assistance to NASSCO and it's workers and subcontractors in the form of administrative help to put systems and areas of the ship in a ready to repair status. One form of administrative assistance the DDG 74 had contractually agreed to was, as experts on the ship's systems, to tag out systems on board to provide a safe environment on the systems or areas to be worked on by NASSCO and/or their contractors.

The record shows that NASSCO provided the requirement to use and the methods for using WAFs to perform repair work scheduled by the contract's scope of work. NASSCO's WAF administrator, Douglas Helms, testified he would issue and record WAFs for jobs scheduled by NASSCO's project management. Regarding tag outs, the ship's force would receive a WAF from a party that desired to do repair work on the DDG 74. Ship's force, using their system expertise and the Navy's Tag-out Users Manual, would generate, based on ship's drawings, schematics, etc., a tag out for the requesting party. The requesting party would review the tag out for applicability and safety for their scheduled job and if satisfied, would allow and verify with the ship's force the hanging of the tags. Testimony from NASSCO stated that the party owning the WAF and requesting the tag out had the ability to ask for changes to the tag out in the review stage if it did not fit their requirements. DDG 74 personnel did not control the WAF generation, record keeping, or scheduling of the jobs associated with the WAFs. The WAF generation, record keeping, or scheduling of the jobs associated with the WAFs was controlled by NASSCO.

AIT Marine requested and was issued WAF 0271 on January 27, 2021. The Job Description of the WAF stated:

> *KTR request Blow-in door to be tagged out in the open position in order to remove and install new gasket in compartment 01-260-1-Q.*

DDG 74 personnel generated a tag out based on the maintenance requirement card U-3: Replace Blow-In Door Gasket, ship's drawings, and the directives from the Tag-out Users Manual. MRC U-3 was used due to its correlating requirement of tagging the BID open for BID gasket replacement matching the AIT WAF request. Kelvin Buie of AIT witnessed and verified the tag out and tag hanging. In summary, the tag out was generated and hung in accordance with the Navy Tag-out Users Manual and the WAF requirements controlled by NASSCO. Additionally, it must be noted that this tag out was for a WAF requested by AIT for a gasket installation.

Coastal Mechanical Systems requested and was issued WAF 0201 on January 5, 2021. The Job Description of the WAF stated:

> *Power-tool clean each surface to accomplish ultrasonic test for structural integrity. Remove existing and install new deck plate, bulkhead plate, structural stiffener, and exhaust duct stiffener to include the removal and reinstallation of insulation.*

No tag out was required.

A hot work permit [HWP] was issued to Coastal on March 3, 2021. The scope of work was "remove and install deck and inserts." Included on the HWP were requirements similar to what OSHA 1915.504 directs. The record does not show if Ms. Gary was a qualified fire watch in accordance with OSHA requirements. However, the requirements of both the HWP and OSHA directives were not met due to the fact that Ms. Gary positioned herself in the open BID door way to be able to do her fire watch duties and communicate with the hot work operators. This deficiency in Coastal's hot work operation led her to be in a potential pinch point due to Coastal's lack of knowledge regarding the safety of the position Ms. Gary had to be in. The record appears to show that Coastal made no effort to ensure the safety of its fire watch's position or look for alternatives. Had Ms. Gary been positioned properly by Coastal to be able to perform her duties as fire watch, her accident would not have occurred. DDG 74 personnel had no control over Coastal's decision to position Coastal's fire watches. Hot work and fire watches were the responsibility of Coastal – DDG 74 was only required to be informed and aware of hot work occurring..The WAF issued for the gasket replacement by NASSCO to AIT had been issued almost three months prior to the hot work performed by Coastal. It is unclear why this delay happened, but as schedulers of work and issuers of WAFs, NASSCO would have been aware of uncompleted WAFs. NASSCO certainly had the opportunity to cancel the WAF when the work scheduled hadn't been done when the WAF was issued.

NASSCO as project manager would certainly have had the opportunity to notice scheduled work was not occurring in accordance with their timeline. Cancelling the WAF would have also caused the associated tag out to be cleared, thereby allowing the BID to be closed when not undergoing maintenance or repair. Nothing in the record explains the delay of the gasket replacement, and nothing in the record explains the allowance of the WAF and its corresponding tag out to remain active when no work was occurring. Had the WAF been cancelled, the BID would not have been open at the time of the accident, and certainly Ms. Gary could not have used it for attempting to do her fire watch duties and thus her accident would not have occurred.

Conclusions

Based on the inspections, review of the reports, discovery, and testimony, CED concludes the following to a reasonable degree of engineering certainty:

1. USS McFaul DDG 74 ship's force personnel performed the tag out for the gasket replacement in accordance with the Navy tag-out users manual and the MRC U-3.
2. USS McFaul DDG 74 ship's force personnel did not perform the gasket tag out to support the hot work being performed by Coastal.
3. If Ms. Gary was qualified in accordance with OSHA 1915.504 and Coastal's hot work permit, she would have known that the method she was using or being instructed to use to be a fire watch was incorrect.
4. Had Ms. Gary found or been instructed to find an alternative method to maintain communication with the hot work operators or have immediate access to the hot work area, her accident would not have occurred.
5. The tag out for the gasket replacement was verified by AIT personnel to be satisfactory for their gasket replacement job.
6. The tag out had been requested, verified and hung to meet the AIT WAF almost three months prior to Ms. Gary's accident. Had NASSCO cancelled the WAF due to

noncompletion after issue, the tag out would have been cleared, the BID been closed, and Ms. Gary would not have attempted to use the BID opening as a fire watch access.

The intention of the client for whom this report has been prepared, and the intention of the author, is to generate expert witness engineering reports, calculations, and supplemental materials solely in connection with expert witness testimony or anticipated testimony for use in a judicial proceeding. The analysis and conclusions provided are not to be relied upon for any other specific purpose related to safeguarding the life, health or property of any persons or entities whatsoever, and are provided solely for use in the process for which the services of the author were retained.

CED reserves the right to amend this report should additional material become available. If there are any questions about the content of this report, or if new information becomes available, please contact our offices.

Submitted by:

Gregory Paulsen
Mechanical Engineer

EXHIBIT A

TECHNOLOGIES INC
SCIENCE EXPLAINED

CURRICULUM VITAE
GREGORY J. PAULSEN, P.E.
Senior Mechanical Engineer

Academic Background
Masters of Engineering, Mechanical Engineering, University of South Carolina, 2006
Bachelors of Science, Mechanical Engineering, University of South Carolina, 1999

Registrations
Registered Professional Engineer, Commonwealth of Pennsylvania, License No. PE070829

Qualifications
CVFI, Certified Vehicle Fire Investigator, Registration No. 17275-9482v
CPE, Certified Plant Engineer. AFE Certification No. 891279
CFEI, Certified Fire and Explosion Investigator, Registration No. 17275-9482
CFPS, Certified Fire Protection Specialist, Certificate No. 3690
Certified Operator, Mobile Elevated Work Platforms and Telehandlers
Certified Training Instructor, Mobile Elevated Work Platforms and Rough-Terrain Forklifts, Registration No. 37535
Certified Forklift Operator
OSHA 30 Hour – General Industry, 1910, April 2012
OSHA 30 Hour – General Construction, 1926, May 2012
OSHA 24 Hour – HAZWOPER, Hazardous Waste Operations and Emergency Response, November 2013

Professional Work History
Mechanical Engineer, CED Technologies Inc., 2010 - Present
Chief Engineer/Partner, Nittany Biodiesel, LLC, State College, Pennsylvania, 2006 - 2010
Director of Engineering/Project Manager, Mixing and Mass Transfer Technologies, LLC, 2002 - 2010
Senior Mold Design Project Engineer, Corning Asahi Video, State College, Pennsylvania, 1999 - 2002
Nuclear Power Plant Supervisor, Mechanic & Operator, E-6 Submarines, United States Navy, 1984 - 1996

Areas of Expertise
Mechanical Systems Design and Analysis
Vehicle Systems and Analysis
Machinery – Operation, Guarding and Controls
Factory Design and Operation
Fire Investigation / Origin and Cause
Hydraulic Fracturing
Drilling Rig Safety
Manufacturing Processes and Design
Fueling Systems and Equipment
Mobile Elevated Work Platforms, Telehandlers, Forklifts and Skid-Steer
Marine Systems
Crane Analysis and Design
Plumbing Systems
HVAC
Product Testing
Shale Development and Processing
Welding, Brazing and Soldering
Firefighting Experience

EXHIBIT A

TECHNOLOGIES INC
SCIENCE EXPLAINED

CURRICULUM VITAE
GREGORY J. PAULSEN, P.E.
Senior Mechanical Engineer

Professional Societies

National Society of Professional Engineers (NPSE)
American Society of Mechanical Engineers (ASME)
American Society of Civil Engineers (ASCE)
Association for Facilities Engineering (AFE)
American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE)
American Welding Society (AWS)

Professional Education

- Training on Mobile Elevating Work Platforms, 12 Professional Development Hours, Certificate of Completion, CED Technologies, Inc., May 2022
- Vehicle Fire, Arson & Explosion Investigation Science & Technology Seminar, NAFI, Lexington, Kentucky, September 2013
- International Association of Drilling Contractors – Rig Pass/SafeGulf/SafeLand USA, March 2013
- Graduate of Fundamentals of Fracturing from Petroleum Institute of Continuing Education

Firefighting Experience

Corning Fire Brigade
Firefighter / High Ropes Rescue Instructor / Confined Space Rescue Instructor
Berks County Firefighter
Basic Firefighting Certification
United States Navy
NSA – Military Housing Fire Brigade
Navy Training – Firefighter and Rescue Truck Apparatus Certification
Navy Training – Submarine Firefighter – USS NARWHAL – USS HOUSTON
Navy Training – Ship Firefighting and Damage Control – USS ORION – USS SIMON LAKE
Volunteer Fire Department, Westwood, Kentucky
Basic Firefighting Certification

EXHIBIT A

TECHNOLOGIES INC
SCIENCE EXPLAINED

FEE SCHEDULE

Effective January 2023

GREGORY J. PAULSEN, P.E.

Senior Mechanical Engineer

$435.00 per hour

Time

Engineering time is billed at the same rate for all services including research, review, analysis, testing, inspections, depositions, trial, testimony and travel. There are no charges or administrative fees for opening or maintaining case files.

Expenses

Normal expenses and costs will be charged to the case. These include:

Mileage	$0.72 per mile
Digital Photographic and CD/DVD/USB	$12.00
Photographic Prints	$0.38 per photograph
Laboratory Usage Fee	At cost
Special Equipment for Testing	At cost
Testing Materials	At cost
Travel	At cost
Hotel, Meals, etc.	At cost

Materials and/or other specified expenditures that are required to the case will be charged at cost. Items purchased that are retained by CED and usable in other cases will not be charged.

Activities are billed monthly. All balances are due upon receipt of invoice. Rates are subject to change without notice. Unpaid bills are charged a service fee of 1 ½ % per month for unpaid balances.

CED reserves the right to require a retainer. This retainer is a forward payment of future services for which the client has contracted, retained and agreed upon the engineer's billable rates and expenses.

The receipt of the signed Client Letter of Agreement (LOA) or case file material received by CED indicates the acceptance of rates and terms and conditions of the LOA.

If there is a question about any item on our fee schedule, please call to discuss your concern. Our ultimate goal is to provide you with the highest level of service possible.

EXHIBIT B

Hornsby v. USA et al. - Materials reviewed by Gregory Paulsen, Mechanical Engineer

Bates Range	Description
AAR 000001-6	Amended Autopsy Report
AIT 000001-105	AIT production (June 25, 2024)
AR 000001-33	Autopsy Photographs
CG 000001-6	Cynthia Gary & family photographs
CMS CIT 000001-9	Misc. documents Plaintiff obtained from OSHA
CMS000001-2	Misc. documents Plaintiff obtained from OSHA
DC 000001	Death Certificate
EMS 000001-4	EMS Report
HIS 000001-3	Misc. documents Plaintiff obtained from OSHA
HIS CIT 000001-11	Misc. documents Plaintiff obtained from OSHA
MCFAUL 000001-26	Photographs of/aboard USS McFAUL 2/2/23
NOC 000001-5	Misc. documents Plaintiff obtained from OSHA
OSHA 000001-96	Misc. documents Plaintiff obtained from OSHA
US000001-164	General Dynamics - NASSCO Norfolk Contract Documents
US000165-574	Misc. McFAUL SRA Documents
US000588-591	"Attachment A" - Incident Report submitted by NASSCO
US000592-697	Tag-Out Users Manual, Navsea 0400-AD-URM-010, Revision 08 28 OCT 2020
US000887-1557	Documents from Supplemental Initial Disclosures
US0001558-1596	Documents from Supplemental Initial Disclosures
US0001950-1992	Class Advisories & related documents
US0004673-5969	Additional USA-NASSCO Contract Documents
US0006212	BID Tech Manual JUN 2018
US0008613	Report RE: BID control switches
US0008632-11921	JFMM
US0011922-12672	NAVSEA Standard Items
US0012673-12741	2513 MRCs
US0012742-US0012745	NAVSEA Event Report #143195 (Redacted)
N/A (4 files)	Videos of blow-in filter door aboard USS McFaul
N/A	Deposition transcripts and exhibits (Getty, Goff, Preetam, Roberts, Buie, Helms)